



**BRANZ Appraised**

Appraisal No.815 [2013]

BRANZ Appraisals

Technical Assessments of products  
for building and construction

**BRANZ  
APPRAISAL  
No. 815 (2013)**

Amended 14 February 2014

**TESCON EXTONSEAL  
SILL TAPE**

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## Product

1.1 TESCON EXTONSEAL Sill Tape is a flexible flashing tape for use around framed joinery openings as a secondary weather resistant barrier.

1.2 The system is installed into and around the framed joinery opening over the building underlay and exposed frame to cover both the face and edge of the opening framing.



## Scope

2.1 TESCON EXTONSEAL Sill Tape has been appraised as a flexible flashing system for use around window and door joinery openings for buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
- with wall cladding systems complying with NZBC Acceptable Solution E2/AS1 or a valid BRANZ Appraisal that specifies a flexible flashing system; and,
- with flexible wall underlays compatible with the flashing tape; and,
- situated in NZS 3604 Wind Zones up to, and including, 'Extra High'.

2.2 TESCON EXTONSEAL Sill Tape has also been appraised as a flexible flashing system for use around window and door joinery openings for steel framed buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, with regards to building height and floor plan area; and,
- constructed with steel framing complying with the NZBC; and,
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
- with wall cladding systems covered by a valid BRANZ Appraisal that specifies a flexible flashing system; and,
- with flexible wall underlays compatible with the flashing tape and steel frame; and,
- situated in NZS 3604 Wind Zones up to, and including, 'Extra High'.

## Building Regulations

### New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, TESCON EXTONSEAL Sill Tape, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet or contribute to meeting the following provisions of the NZBC:

**Clause B2 DURABILITY:** Performance B2.3.1(b), 15 years and B2.3.2. TESCON EXTONSEAL Sill Tape meets these requirements. See Paragraphs 8.1 and 8.2.

**Clause E2 EXTERNAL MOISTURE:** Performance E2.3.2. TESCON EXTONSEAL Sill Tape contributes to meeting this requirement. See Paragraphs 7.1 - 7.4 and 11.1.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. TESCON EXTONSEAL Sill Tape meets this requirement and will not present a health hazard to people.

3.2 This is an Appraisal of an **Alternative Solution** in terms of New Zealand Building Code compliance. See Paragraph 7.1.

## Technical Specification

4.1 System components and accessories supplied by Pro Clima (NZ) Ltd are:

- TESCON EXTONSEAL Sill Tape is a pressure-sensitive, self-adhering, one piece stretchable butyl rubber based sill tape with a release backing paper. The core of the tape is coloured grey with a black polyethylene upper layer which bears the product and manufacturer's name. The tape is supplied in rolls of 150 mm and 200 mm width and a length of 20 m. The rolls are wrapped in clear plastic.
- Pro Clima (NZ) Ltd PRESSFIX application tool to aid installation of the tape.

## Handling and Storage

5.1 Handling and storage of all materials supplied by Pro Clima (NZ) Ltd, whether on or off site, is under the control of the installer. TESCON EXTONSEAL Sill Tape must be protected from damage and weather. Rolls must be stored under cover, in clean, dry conditions away from direct exposure to sunlight.

## Technical Literature

6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for the TESCON EXTONSEAL Sill Tape. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

## Design Information

### General

7.1 TESCON EXTONSEAL Sill Tape has been assessed against BRANZ criteria which is an alternative solution to the test method referenced by NZBC Acceptable Solution E2/AS1 Paragraph 9.1.5(b). The installation method for TESCON EXTONSEAL Sill Tape follows the installation guidelines shown within NZBC Acceptable Solution E2/AS1, Figures 72A and 72B.

7.2 The use of flexible flashing systems around window and door joinery openings is critical to assist the overall weathertightness performance of window and door joinery installations.

7.3 TESCON EXTONSEAL Sill Tape is designed to prevent air leakage and water penetration around window and door openings at framing junctions (e.g. at the sill trimmer and opening stud junction), and to keep any water that gets past the cladding, or through the joinery, from direct contact with the framing timber.

7.4 TESCON EXTONSEAL Sill Tape is not designed to overcome poor detailing and workmanship of the window or door joinery installation. The system must not be considered in isolation, but be considered as part of the wall cladding system. TESCON EXTONSEAL Sill Tape is designed to be used in conjunction with air seals and joinery flashing systems, not as a substitute.

7.5 When the TESCON EXTONSEAL Sill Tape is used in conjunction with LOSP (light organic solvent preservative) treated timber, the solvent from the timber treatment must be allowed to evaporate (generally at least one week) prior to the installation of the system.

## Durability

8.1 Assessment of durability to meet the NZBC is based on difficulty of access and replacement, and the ability to detect failure of the TESCON EXTONSEAL Sill Tape both during normal use and maintenance of the building.

### Serviceable Life

8.2 Provided it is not exposed to the weather or ultra-violet light for a total of more than 90 days, and provided the exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather resistant, TESCON EXTONSEAL Sill Tape is expected to have a serviceable life equal to that of the cladding. The maximum exposure period of the tape may however be limited by the requirements of the substrate manufacturer.

## Maintenance

9.1 No maintenance is required for TESCON EXTONSEAL Sill Tape. Regular checks, at least annually, must be made of the junctions between the joinery and wall cladding to ensure that they are maintained weathertight and that the primary means of weather resistance for the junction e.g. flashing, sealant, etc continues to perform its function, to ensure that water will not penetrate the cladding.

## Prevention of Fire Occurring

10.1 TESCON EXTONSEAL Sill Tape must be separated from fireplaces, heating appliances, flues and chimneys in accordance with the requirements of NZBC Acceptable Solutions C/AS1 to C/AS6, Paragraph 7.5.9 for the protection of combustible materials.

## External Moisture

11.1 Where a cladding manufacturer specifies the use of generic flashing tape around window and door joinery openings at framing junctions as part of their system, or they specify the use of flexible flashing tapes that comply with NZBC E2/AS1, Paragraph 9.1.5(b), TESCON EXTONSEAL Sill Tape may be used.

## Installation Information

### Installation Skill Level Requirements

12.1 Installation of the TESCON EXTONSEAL Sill Tape must be completed by tradespersons with an understanding of flexible flashing tape systems, in accordance with instructions given within the TESCON EXTONSEAL Sill Tape Technical Literature and this Appraisal.

### General

13.1 The selected wall underlay must be installed in accordance with the manufacturer's instructions, and must completely cover the joinery opening. The underlay is then cut on a 45° angle away from each corner of the opening so the flaps can be folded into the opening and secured to the interior face of the timber framing.

13.2 Before the TESCON EXTONSEAL Sill Tape is applied, the substrate surfaces must be clean, dry and free from any surface contaminants such as dust and grease that may cause loss of adhesion.

13.3 A length of TESCON EXTONSEAL Sill Tape must then be cut to the length of the sill plus 200 mm. The tape is installed flush with the interior face of the opening and is applied along the entire length of the sill and minimum 100 mm up each jamb. The overhanging tape is folded onto the face of the wall underlay.

13.4 A 200 mm length of TESCON EXTONSEAL Sill Tape must be installed minimum 100 mm down the jamb and minimum 100 mm along the lintel at each of the top corners of the window or door joinery opening.

13.5 At the corners, the TESCON EXTONSEAL Sill Tape is fanned out over the face of the wall and pressed firmly onto the wall underlay, taking care not to overstretch the tape.

13.6 Ensure that adequate adhesion of the tape to the wall underlay is achieved by using the Pro Clima (NZ) Ltd PRESSFIX tool and that the tape is installed tight into the sill/jamb junction.

13.7 TESCON EXTONSEAL Sill Tape must not be over stretched. To avoid wastage, the tape can be lapped 100 mm minimum onto itself without reducing the performance of the TESCON EXTONSEAL Sill Tape.

13.8 If the TESCON EXTONSEAL Sill Tape is exposed to the weather or UV light for more than 90 days, then it must be replaced with new material.

#### **Installation Temperature**

13.9 The TESCON EXTONSEAL Sill Tape must not be installed where the ambient air and substrate temperatures are less than -5°C. Care is required to ensure adhesion is still able to be achieved when the temperature is less than 0°C.

*(Note: Pro Clima (NZ) Ltd claims an installation temperature from -20°C. This claim has not been assessed by BRANZ and is therefore outside the scope of this Appraisal.)*

#### **Inspections**

13.10 The Technical Literature must be referred to during the inspection of TESCON EXTONSEAL Sill Tape installations.

## **Quality**

16.1 The manufacture of the TESCON EXTONSEAL Sill Tape has been examined on behalf of BRANZ, including methods adopted for quality control. Details of the quality and composition of the materials used were obtained and found to be satisfactory.

16.2 The quality of supply to the market is the responsibility of Pro Clima (NZ) Ltd.

16.3 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and wall underlays in accordance with the instructions of the designer.

16.4 The quality of installation, handling and storage on site is the responsibility of the installer in accordance with the instructions of Pro Clima (NZ) Ltd.

## **Sources of Information**

- ICC Evaluation Service, Inc, AC148 Acceptable Criteria for Flexible Flashing Materials, July 2001.
- NZS 3604: 2011 Timber-framed buildings.
- Compliance Document for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third Edition July 2005 (Amendment 5, 1 August 2011).
- Ministry of Business, Innovation and Employment Record of Amendments for Compliance Documents and Handbooks.
- The Building Regulations 1992.

## **Basis of Appraisal**

The following is a summary of the technical investigations carried out:

### **Tests**

14.1 The TESCON EXTONSEAL Sill Tape has been tested to BRANZ criteria to assess the tensile strength of control and UV aged material, nail sealability, water resistance of control and UV accelerated aged material and pliability. BRANZ has determined that the tape is fit for purpose for the intended use. The adhesion of TESCON EXTONSEAL Sill Tape to black bituminous Kraft paper complying with the requirements of NZBC Acceptable Solution E2/AS1, Table 23 and other selected synthetic wall underlays has also been tested and found to be satisfactory.

### **Other Investigations**

15.1 An assessment was made of the durability of the TESCON EXTONSEAL Sill Tape by BRANZ technical experts.

15.2 Site inspections were carried out by BRANZ to examine the practicability of installation.

15.3 The Technical Literature has been reviewed by BRANZ and found to be satisfactory.



**BRANZ**

In the opinion of BRANZ, **TESCON EXTONSEAL Sill Tape** is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **Pro Clima (NZ) Ltd**, and is valid until further notice, subject to the Conditions of Appraisal.

#### Conditions of Appraisal

1. This Appraisal:
  - a) relates only to the product as described herein;
  - b) must be read, considered and used in full together with the technical literature;
  - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
  - d) is copyright of BRANZ.
2. **Pro Clima (NZ) Ltd**:
  - a) continues to have the product reviewed by BRANZ;
  - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
  - c) abides by the BRANZ Appraisals Services Terms and Conditions.
  - d) Warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
  - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
  - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
  - c) any guarantee or warranty offered by **Pro Clima (NZ) Ltd**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Pro Clima (NZ) Ltd** or any third party.

For BRANZ

P Burghout  
Chief Executive

Date of issue: 17 June 2013

#### Amendment No. 1, dated 14 February 2014.

This Appraisal has been amended to update the maximum exposure period for TESCON EXTONSEAL from 30 days to 90 days. The updated product bears the BRANZ Appraisal logo No. 815 (2013) on the roll end label and may be exposed to UV for up to 90 days prior to installation of the cladding. Rolls of TESCON EXTONSEAL which do not have the BRANZ Appraisal logo, may only be exposed for a maximum of 30 days.